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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,503	02/23/2004	Shih-Hsiung Li	728-215A	2169

7590 09/08/2004
Hedman & Costigan, P.C.
1185 Avenue of the Americas
New York, NY 10036-2646

EXAMINER

TWEEL JR, JOHN ALEXANDER

ART UNIT	PAPER NUMBER
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2636

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/784,503

Applicant(s)

LI, SHIH-HSIUNG

Examiner

John A. Tweel, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-15 is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the first line of the abstract contains an incorrect article "An" before "returned". The correct word should be --a--. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

- Page 2, Line 17: There is an extra period at the end of this sentence.
 - Page 3, Line 16: The specification says that the transceiver "receives the same echoed back". Echoed what? Should this read --echoed signal--?
 - Page 4, Lines 17-18: The sentence in these lines makes almost no sense. Should there be a word such as --is-- before connected.
 - Page 4, Lines 23-24: A verb such as --is-- is needed before electrically connected.
 - Page 5, Line 6: The specification mentions processor pins P00-D07. The specification shows the processor pins as P00-P07.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "the active sensor" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the sensors" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the sensor array" in line 8. There is insufficient antecedent basis for this limitation in the claim.

5. Claims 10-15 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The specific apparatus taught by the vehicle backing system of independent claim 9 is not to be found in any obvious combination in the prior art. The processor in conjunction with a channel selector, multiple power boosters, and A/D converter whereby the processor through the channel selector governs the sequence of transmission of a ranging signal and later the reception of echoes signals by the same sequence which are then converted by the A/D converter is unobvious.

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Woehrl et al [U.S. 4,836,024] detects a collision of a motor vehicle having at least two acceleration detectors.

Spies et al [U.S. 5,424,583] triggers a passive safety system upon detection of an impact.

Leif [U.S. 5,867,800] utilizes a transmitted wave having a first frequency of slow propagation.

Yamada [U.S. 6,369,700] scans with radar beams synthesized with digital signal processing.

Brosche [U.S. 6,611,759] uses at least one radar sensor for evaluating objects in a surrounding area.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Tweel, Jr. whose telephone number is 571 272 2969. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 571 272 2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAT
9/6/04

A handwritten signature in black ink, appearing to read "John Tweel", with a stylized, cursive script.

JOHN TWEEL
PRIMARY EXAMINER